

**WHAT IS CLAIMED IS:**

1           1. A balance (1), comprising a weighing pan (3), a  
2 weighing compartment (2) surrounding the weighing pan on all  
3 sides, a draft shield (4) enclosing the weighing  
4 compartment, and a stationary part, wherein the draft shield  
5 has at least one vertical wall (8) formed as a component of  
6 the stationary part, wherein at least one thermoelectric  
7 module (16) is arranged outside of the weighing compartment  
8 (2) near the stationary part in a lower portion of the  
9 balance and thermally connected to the stationary part,  
10 wherein the at least one vertical wall (8) has a lower end  
11 portion in thermal connection with the thermoelectric module  
12 (16), and wherein the at least one vertical wall (8) is  
13 configured in such a way that a temperature gradient with a  
14 bottom-to-top temperature increase develops in said at least  
15 one vertical wall (8).

1           2. The balance (1) according to claim 1, wherein  
2 the stationary part of the balance has a floor plate (11)  
3 extending over the entire length of the balance (1) and  
4 consisting of a material with good thermal conductivity,  
5 said floor plate (11) being in thermal connection with the  
6 at least one thermoelectric module (16).

1           3. The balance (1) according to claim 1, wherein  
2 the stationary part includes a measuring cell compartment  
3 (9) and a balance housing (10) surrounding the measuring  
4 cell compartment, and wherein the at least one vertical wall  
5 (8) is configured as a separating wall between the weighing  
6 compartment (2) and the measuring cell compartment (9).

1           4. The balance (1) according to claim 3, wherein

2 the measuring cell compartment (9) contains air with a  
3 vertical air temperature gradient with a bottom-to-top  
4 temperature increase.

1 5. The balance (1) according to claim 1, wherein  
2 the weighing compartment (2) at least near the weighing pan  
3 (3) contains air with a vertical air temperature gradient  
4 with a bottom-to-top temperature increase.

1 6. The balance (1) according to claim 1, wherein  
2 respective temperatures in an upper end and a lower end of  
3 at least one of the at least one vertical wall (9) and the  
4 weighing compartment (2) differ by substantially no more  
5 than 1°C.

1 7. The balance (1) according to claim 6, wherein  
2 said respective temperatures differ by substantially no more  
3 than 0.5°C.

1 8. The balance (1) according to claim 3, wherein  
2 respective temperatures in an upper end and a lower end of  
3 the measuring cell compartment (9) differ by substantially  
4 no more than 1°C.

1 9. The balance (1) according to claim 8, wherein  
2 said respective temperatures differ by substantially no more  
3 than 0.5°C.

1 10. The balance (1) according to claim 2, wherein  
2 the floor plate (11) has a temperature that is no higher  
3 than a few tenths of a degree Celsius above ambient  
4 temperature, substantially no more than one half degree  
Celsius.

1           11. The balance (1) according to claim 10, wherein  
2 said temperature is a few tenths of a degree Celsius below  
3 ambient temperature, substantially no more than one half  
4 degree Celsius.

1           12. The balance (1) according to claim 2, wherein  
2 the at least one thermoelectric module (16) has a hot side  
3 and a cold side and is attached to the floor plate (11) with  
4 the cold side facing towards the floor plate (11) and the  
5 hot side facing towards an outside environment of the  
6 balance.

1           13. The balance (1) according to claim 2, further  
2 comprising a heat-conducting body (15) connected to the  
3 floor plate (11) and the vertical wall (8), wherein the at  
4 least one thermoelectric module (16) has a hot side and a  
5 cold side and is attached to the heat-conducting body (15)  
6 with the cold side facing towards the heat-conducting body  
7 (15) and the hot side facing towards an outside environment  
8 of the balance.

1           14. The balance (1) according to claim 1, further  
2 comprising a heat sink (17) connected to a hot side of the  
3 at least one thermoelectric module (16) to provide a rapid  
4 heat removal into ambient air.

1           15. The balance (1) according to claim 3, wherein  
2 the measuring cell compartment (9) comprises a weighing-cell  
3 electronics (20) module arranged in an upper half of the  
4 measuring cell compartment (9), so that a heat flow is  
5 generated from the weighing cell electronics (20) to the at  
6 least one vertical wall (8) and said heat flow enhances the  
7 temperature gradient in the stationary vertical wall.

1           16. The balance (1) according to claim 15, wherein  
2       said electronics (20) module is arranged in the top third of  
3       the measuring cell compartment (9).

1           17. The balance (1) according to claim 1, wherein  
2       the at least one vertical wall (8) has a material thickness  
3       that decreases in the bottom-to-top direction.

1           18. The balance (1) according to claim 1, further  
2       comprising an indicating- and operating unit (13) which can  
3       be brought into thermal contact with the floor plate (11) to  
4       remove heat caused by power dissipation of the indicating-  
5       and operating unit (13).

1           19. The balance (1) according to claim 1, wherein  
2       the draft shield (4) comprises a front wall (5) with a  
3       metallic frame that is connected to the floor plate (11).